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NOTES AND DESCRIPTIONS OF NORTH AMERICAN XYLOPHAGIDÆ AND STRATIOMYIDÆ.

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Xylophagus decorus, n. sp.

♀. Length 13 mm. Black, legs yellow. Front convex, but little shining, thinly brownish dusted. Antennæ black, the tip of first joint and the second more reddish brown; elongate, the first joint rather longer than the distance from the insertion to the ocelli. Proboscis black. Dorsum of thorax shining on the sides, in the middle with two broad brownish pollinose stripes, separated by a shining linear space. Pleuræ shining black. Abdomen blackish brown, shining. Legs, including the coxæ, reddish yellow, the tips of all the tarsi black. Wings nearly hyaline, a broad brownish band, near the middle, narrowed and evanescent posteriorly, the outer cross-veins clouded and the outer part of the wing cinereous.

One specimen, Washington Territory (H. K. Morrison). The abdomen probably varies in depth of color.

Xylophagus gracilis, n. sp.

♂, ♀. Length 9-10 mm. Black, legs light yellow. Front grayish dusted. Antennæ black, the third joint toward the base on the inside, yellowish; only a little longer than the head; first joint only about three times as long as the second, considerably shorter than the distance from the insertion to the ocelli. Thorax shining, the dorsum with two broad, narrowly separated, pollinose stripes; humeri and post-alar callosities obscurely yellowish. Halteres yellow. Abdomen shining black, white pubescent, rather slender and cylindrical in the male. Legs, including the coxæ, light yellow; outer end of all the femora, and the tip of hind tibiæ, lightly brownish; tip of the tarsi blackish. Wings hyaline, variegated on the outer half with brownish, the stigma narrowly brown.

Two specimens, Washington Terr. and Mt. Hood, Oregon (H. K. Morrison).

Coenomyia cinereibarbis Bigot. Annales Soc. Ent. Fr. 1879, 194.

This species was described by Bigot from a specimen from Baltimore. As usual with this author, he does not point out differences, merely saying that this species resembles certain varieties of *C. ferruginea* in color. Now it is well known that *C. ferruginea* is very variable in coloration, so much so, in fact, that it has received twelve or thirteen specific names. The coloration hence of Mr. Bigot's specimen, from analogy, is comparatively worthless as a specific character. Nothing else is mentioned except the villosity. From this, however, I believe I recognize the species in a male specimen caught in the woods near New Haven, in June. It is of a deep brownish black, the femora of the same color. The abdomen above has the second segment wholly black (shining), the third segment with a large light yellow spot on the posterior angles, the fourth segment with a similar but smaller one, and with the posterior margin likewise yellow, the remaining segments chiefly yellow. The species will be best distinguished from *C. ferruginea* by the presence of rather long and abundant yellow pile on the dorsum of the thorax, whereas in *ferruginea* the dorsum is nearly bare.

Subula pallipes Loew.

This species has hitherto only been known from the Atlantic States, but specimens from Montana (Prof. Comstock, No. 50) and Southern California cannot be separated. The western specimens show a broader yellow hind margin to the abdominal segments, but otherwise I can distinguish no difference.

Subula parens, n. sp.

♀. Length 13 mm. Front black, light yellowish pubescent, shining about the ocelli. Antennæ black, the inner side from the base, except the upper margin, yellowish red. Face black, proboscis and tip of the palpi reddish yellow. Dorsum of thorax black, the lateral margins, interrupted just behind the suture, and extending inwards a short distance in front, and a slender spot on the suture on each side, yellow. Pleuræ and coxæ black, the former with a median vertical spot, connected above with a slender stripe reaching from the humeri to the root of the wings, and a large spot on the sides of the metanotum, yellow. Abdomen brownish

red, black at the base. Legs yellow, a broad preapical ring on the hind femora black, the ends of the hind tibiae brown, hind metatarsi a half longer than the remaining joints together. Wings strongly tinged with yellow, the veins a little darker.

One specimen, Washington Ty. (H. K. Morrison).

Beris mexicana Bell.?

♂, ♀. Length 7-8 mm. Eyes pilose, broadly contiguous in the male, the frontal triangle small; front in female rather broad, with parallel sides. Head black, shining, with luteous pile. Antennae black, the base of the third joint yellowish; third joint thick at the base, the whole antenna not longer than the distance from its base to the ocelli. Thorax and scutellum bright shining green, with a purplish reflection, pile in the male only moderately long, luteous; scutellum with six blackish spines, and on each side sometimes with a rudimentary additional one. Abdomen black, but little shining, along the sides with yellowish pile. Legs yellow; all the tarsi, except the base or larger part of the first joint, black. Hind metatarsi in the male considerably swollen, longer than the remaining joints together. Wings strongly tinged with yellowish, the stigma large, brown.

Six specimens, Colorado (Morrison, Prof. Comstock, No. 47). Some of the specimens have the hind femora above at the tip blackish. This species is most closely allied to *B. mexicana* Bell, but differs in the abdomen being wholly black. A comparison with Mexican specimens is needed.

Sargus decorus Say. (= ? *S. xanthopus* Wied.)

Hab. New Eng., Colo., Wash. Ty.

Sargus viridis Say.

(*Sargus nigribarbis* Bigot, Annales Soc. Ent. France, 1879, 224.)

Hab. Eastern, Middle and Pacific States.

This species is a true *Sargus*; the eyes of the male are not contiguous, and are bare.

Macrosargus clavis, n. sp.

♂, ♀. Length 9-10 mm. Vertical triangle and the under part of the face in the male, and the upper two-thirds of the front and the face likewise in the female, bright shining green, frontal triangle and the lower part of the front (♀) moderately projecting, yellowish white, front in the

female of moderate width, parallel. Antennæ and proboscis yellow. Thorax bright shining green; humeri and a slender line reaching to the root of the wings, and the sides of the metanotum broadly, light yellow; pile of dorsum and mesopleuræ yellow. Abdomen in the male pedicellate, the second segment cylindrical, in the female moderately contracted toward the base; black, with a bronze lustre; second segment in the female, except the lateral margins, yellow; the posterior angles of the third and fourth segments narrowly yellow; in the male the second segment is obscure yellow; pile golden. Legs, including the coxæ, yellow. Wings nearly hyaline.

Two specimens, Virginia (Theo. Pergande) and North Carolina (Prof. Comstock).

Ptecticus Sackenii, n. sp.

[*Ptecticus testaceus* Osten Sacken (non Fabr.), Cat. Dipt. 45; Lynch Arribalzaga, Catalogo, etc., 125 (17).]

♀. Length 11 mm. Front narrow, shining black, the lower part and the face yellowish white. Thorax yellow, the dorsum with three broad, more brownish, stripes. Abdomen reddish yellow, the second, third and fourth segments with a black fascia, acute at each end and not reaching the lateral margin. Legs yellow, the hind tibiæ brownish, becoming black at distal end, hind metatarsi black, the following joints nearly white, last three joints of front tarsi blackish, of middle tarsi brownish, the third joint of all these tarsi less dark. Wings hyaline, with a light yellowish tinge.

A specimen from Florida (Pergande) agrees with the ones mentioned by Baron Osten Sacken in the note on page 45 in having the four last joints of the hind tarsi yellow, the terminal ones not being black, as described. Lynch says in regard to these species (l. c.): "Los ejemplares de Nueva York de que habla Osten Sacken deben pertenecer a otra; todos los míos tienen los tarsos posteriores como los describe Rondani."

Ptecticus similis, n. sp.

♂, ♀. Length 11-12 mm. Head and antennæ wholly yellow, the frontal tubercle below prominent, the small ocelliferous tubercle black. The front in the female narrow; in the male the eyes nearly contiguous above the tubercle. Thorax yellowish amber color, the humeri, postalar callosities, the sutures narrowly, and a large spot on the sides of the metanotum, light greenish, two linear stripes on the back part of the dorsum,

less distinctly so. Knob of the halteres green. Abdomen brownish yellow, the incisures and posterior angles of the segments yellow, the sides of the base greenish, across the anterior part of the segments the color broadly brown. Legs reddish yellow, the hind tibiae and tarsi brown, two last joints of all the tarsi blackish. Wings with a faint yellowish tinge.

Three specimens, Virginia (Pergande), and Georgia. I would at first have identified this species with *Sargus trivittatus* of Say, but grass green can in no wise be applied to my specimens, the color being so faint green that it is scarcely observable to the naked eye. The third joint of the antennae is by no means rounded, but trapezoidal in shape.

Hermetia aurata Bellardi, Saggio, etc. i., 27, tab. i., fig. 8; Loew, Centur. x., 11 (*H. chrysopila*).

A single specimen from New Mexico agrees very well with the descriptions. The first joint of the antennae is chiefly black.

Hermetia lativentris Bellardi, op. cit., 27, tab. i. fig. 9.

A female from New Mexico. I refer to this with some doubt. The head is wholly yellow, except the ocelli; the first segment of the abdomen is not black, the second has a narrow median black stripe. Bellardi's figure shows but three posterior veins, probably an inaccuracy.

Hermetia Comstocki, n. sp.

♂, ♀. Length 15-18 mm. Head reddish yellow, with yellow pile. Antennae only a little darker yellow, the tip of the second joint and the lamella deep black; lamella rather broad. Dorsum of thorax blackish brown or black, the sides and the middle behind brownish red; the black forms two rather broad median stripes, abbreviated behind, separated by a golden tomentose stripe; on each side there are two large indefinite black spots; on each humerus, running inwards and backwards for a short distance, a spot of golden tomentum. Pleurae, except above and the sides of the metanotum, black, a spot above, contiguous with that on the side of the dorsum, clothed with yellow pile. Scutellum yellowish red, the base narrowly black. Abdomen brownish red, but variable, sometimes brown or blackish, the second segment on its posterior border and the remainder of the abdomen, with short thick golden pile, changeable in different reflections. Abdomen elongate, broadest on the second segment. Legs wholly reddish yellow, front coxae in front of the same color, the tarsi a little lighter, tibiae somewhat dilated, the hind pair very distinctly

bent beyond the middle in the male. Wings deep brown along the anterior half, broadly infuscated along the posterior border, leaving a space hyaline in the anal cell and the base of the fifth posterior cell.

This is a handsome large species, rather larger than *illucens*, which it resembles in shape, the abdomen being more convex. Two specimens, Arizona, from Professor Comstock (No. 46).

Euparhyphus, n. sp.?

♀. Length 6 mm. The head and thorax of this species agree throughout with Loew's description of *E. stigmatalis*, except that the scutellum is yellow, with the base narrowly black. The abdomen shows a distinct difference in that the first segment has a small lateral spot, and the second, third and fourth segments with a large green triangle on the posterior angles, extending to the front margin of the segment and touching each other behind on the fourth segment; the inner margins of these green spots are yellowish. The fifth segment is wholly greenish and yellowish to the naked eye. The abdomen shows a broad greenish yellow margin. The legs are wholly yellow, except the last three joints of the tarsi, which are black. The wings agree also, except that the veins and stigma are less dark.

One specimen, Washington Territory.

Euparhyphus ornatus, n. sp.

♀. Length 6 mm. Front and face yellow, with black markings, as follows: A spot on each side in front of the ocelli; a slender stripe from near the ocelli to the oral margin, interrupted at the antennæ; a broader stripe (broader above) beginning a little lower on each side and reaching to the oral margin. First two joints of the antennæ yellow, the third wanting. Occiput black. The lateral orbits yellow. The lateral margins of the face, and the posterior orbits below, white pollinose. Thorax black. Two very slender dorsal vittulæ, broadly separated, the humeri and a slender line reaching to the base of the wings, the postalar callosities, the margin of the scutellum and spines, a spot in front of the wings on the pleuræ, contiguous with the line above it, and a smaller spot below, yellow. Abdomen black; the third segment on each side, with a rather large semi-elliptical spot, the slender lateral margin of the remaining segments, and the broader hind margin of the last segment, yellow. Legs yellow; the hind femora and tibiæ in their middle infuscated; the last

three joints of all the tarsi blackish. Wings with the veins of the disk fuscous; third vein furcate.

One specimen, Washington Territory.

Euparhyphus bellus Loew.

Three specimens from Pennsylvania, all evidently of the same species. I identify as this, but the species is variable. The head in both females agrees with the description; the head of the male likewise agrees with the specimen spoken of in the note. In one female there are two slender yellow vittulae in the front of the dorsum, in the other two it is wanting. The scutellum is wholly black in all, except the spines. The abdomen in all agree in having two small circular yellow spots on the disc of the third segment, a minute yellow spot on the posterior angles of the third and fourth segments, and a large semi-oval yellow spot on the fifth segment, otherwise the abdomen is wholly black. In one of the females the first discal posterior vein is but the merest rudiment. I do not doubt but that Loew's male and female specimens belonged together.

A single male specimen from Connecticut is related, but it may be different. It is somewhat larger, and differs from my male of *E. bellus* in having two larger yellow spots on the disk of the third segment, and two additional similar ones on the fourth segment.

Clitellaria lata Loew.

A male specimen from Washington is apparently this.

A female from California has the pubescence of the head and abdomen more golden colored than white, and the third antennal joint is much more thickened.

Clitellaria argentata, n. sp.

Length 8 mm. ♂. Black, with light colored pile and silvery pubescence. Eyes broadly contiguous, thickly fuscous pilose. Pile of the front and face light gray. Antennae rather slender; first two joints, tip of the third, and style black, remainder yellowish red. Thorax, with light gray pile and nearly uniform recumbent silvery pubescence; a slender median stripe, a little broader, interrupted one, on each side, two small spots on the pleurae, and the metanotum, glabrous; spines of the scutellum yellow. Abdomen, with short recumbent white pile, nearly uniform, with small, oval, nearly glabrous spots on the front margins of the anterior

segments. Legs with white pile, the color of the tarsi less dark. Wings nearly hyaline, the stigma luteous.

One specimen, Arizona, (Prof. Comstock).

Cyphomyia, n. sp.

Five male specimens from Jamaica differ from the described species, except perhaps *varipes* Gerst., the description of which I do not have access to. The base of the third joint of the antennæ, and the scutellum, are red, and all the metatarsi, except the tip, light yellow. Otherwise steel-blue black. The eyes pilose.

Nemotelus unicolor, Loew.

Two specimens from Pennsylvania. In one of them the two basal joints of the antennæ are yellowish. Another from Arizona (Prof. Comstock, No. 52) I cannot distinguish.

Nemotelus crassus Loew.

Three specimens from Western Kansas agree with the description of this species, but are somewhat smaller.

Pachygaster pulchris Loew.

Two females from Montana differ but little from eastern specimens. The femora have only a blackish ring in their middle.

Odontomyia cincta Olivier. Encycl. Meth. viii., 432, 3; Macquart, Dipt. Exot. i. 2, 189; Day, Proc. Acad. Nat. Sc. 1882, p. 80 (*O. extremis*, type compared.) Atlantic and Pacific States.

Odontomyia flava Day. Proc. Acad. Nat. Sc., 1882, 76.

The type specimen in my collection is partly destroyed by Anthreni, I give as complete a description as it will permit.

♂. Length 11 mm. Head black, face of usual size, with two obscure yellowish spots below, clothed with light colored pile. Dorsum of thorax black, with rather long light pile. Scutellum black, the spines of the same color, rather small and approximate. Abdomen black, with a rather narrow yellow margin and with two slender, broadly interrupted, yellow posterior cross-bands (on the second and third segments), venter yellow. Legs yellow; femora at their base, and the distal part of the tarsi brown, the tibiæ in their middle with a brownish ring. Wing hyaline. Veins yellow, third longitudinal vein furcate, third posterior vein rudimentary.

Como, Wyo. Resembles *O. inequalis* Loew, but differs in the scutellum and abdomen.